

AMENDMENTS TO THE SPECIFICATION:

Please amend page 5 paragraph 0011, and page 6, as follows:

The production of gypsum plaster board is described in US reference 6,342,284. It is the object of said invention to improve the mechanical stability of the gypsum plaster boards when they are subjected to continuous stress. Different phosphate salts were tested in connection with this invention. Plaster mixtures, containing calcium sulfate hemihydrate, calcium sulfate di-hydrate, as well as anhydrate, were produced in combination with the different phosphate salts. Plaster mixtures containing, among other things, also sodiumtrimetaphosphate /STMP/ were produced according to Example 1. The compressive strength of the products was examined and the results listed in Table 1. It was found that the admixture of STMP was highly effective with respect to the compressive strength of the boards. Table 2 lists the mixtures for which the mechanical stability of the boards produced with said plaster compounds was tested. Here too, the mixture containing STMP proved to be particularly good. The plaster boards were subjected to a subsequent treatment /post treatment/ in a different test series using solutions of STMP. The solutions were sprayed onto the calcium sulfate dihydrate surface and allowed to dry again. Illustration 5 shows the excellent effect of STMP with respect to the sag deflection, meaning the bending strength of the boards. Even excellent results were obtained with STMP following a series of mechanical tests on the boards, it was discovered (lines 42 [[ff]] *et. seq.* in column 4) that STMP does not have the effect of retarding the setting, meaning it does not increase the re-conversion rate of calcined plaster into calcium sulfate dihydrate. Reference US 6,342,284

consequently did not disclose the aforementioned effect and, on the contrary, expressly negated this effect.

Brief Descripton of the Drawings

Figure 1 is a graph of the plot of rate vs. time, of plaster setting results of Example 1.

Figure 2 is a graph of the plot of rate vs. time, of plaster setting results of Example 2.

Figure 3 is a graph of the plot of rate vs. time, of plaster setting results of Example 3.

Figure 4 is a graph of the plot of rate vs. time, of plaster setting results of Example 4.

Please amend pages 8-10, the Example headings particularly, as follows:

[00017] **Example 1, Illustration 1 (Figure 1):**

For this experiment, 3 mixtures were tested in a commercially available plaster:

1. 0.065 weight % tartaric acid and 0.13 weight % tetrasodium pyrophosphate
 /comparison/
2. 0.065 weight % tartaric acid and 0.13 weight % sodium polyphosphate
 /comparison/
3. 0.065 weight % tartaric acid and 0.13 weight % sodium trimetaphosphate
 /according to the invention/.

The mixture 1 is not suitable because the available processing time is too short and the curve is too steep. The mixture 2 has a somewhat longer processing time, as shown by the flatter curve progression. The mixture 3 is particularly suitable because it has a flat curve, meaning the delay in the retarding of the setting at the end of the setting time is still quite

long. The best result is therefore achieved with the mixture 3, which contains sodium trimetaphosphate.

[00018] **Example 2, Illustration 2 (Figure 2)**

For this experiment, manually-applied plaster was mixed with respectively 3 different retarding agent compounds:

1. 0.065 weight % tartaric acid and 0.13 weight % sodium polyphosphate
2. 0.065 weight % tartaric acid and 0.13 weight % sodium trimetaphosphate
3. 0.065 weight % tartaric acid and 0.075 weight % sodium trimetaphosphate

The experiment showed that the mixture 2 is highly suitable and that even with a reduction in the sodium trimetaphosphate amount by 40%, the result is still better than for the mixture 1.

[00019] **Example 3, Illustration 3 (Figure 3)**

A machine-applied plaster was mixed with 2 different mixtures and the setting process analyzed with respect to time:

1. 0.1 weight % tartaric acid and 0.14 weight % sodium polyphosphate
2. 0.1 weight % tartaric acid and 0.14 weight % sodium trimetaphosphate

The result shows a clear improvement in the retardation effect of sodium trimetaphosphate as compared to the same dosage of sodium polyphosphate

[00020] **Example 4, Illustration 4 (Figure 4)**

A further test was conducted with a machine-applied plaster and the following mixtures:

1. 0.14 weight % tartaric acid and 0.11 weight % sodium polyphosphate
2. 0.14 weight % tartaric acid and 0.11 weight % of the phosphate salt combination according to the invention; wherein this combination contained 0.033 weight %

sodium polyphosphate and 0.077 weight % sodium trimetaphosphate;

3. 0.1 weight % tartaric acid and 0.07 weight % of the phosphate salt combination according to the invention, with 0.021 weight % sodium polyphosphate and 0.049 weight % sodium trimetaphosphate.

In combination with tartaric acid as retarding substance, present in an amount of 0.1 weight %, the sodium trimetaphosphate can even be reduced by 40% as compared to the amount of sodium polyphosphate while the retarding process remains at an optimum level, especially toward the end of the setting period.